

eased; but the latter maintains that the anterior roots are affected. The following are his conclusions: (1) Contractures in paresis are in the last stage of the disease process and are associated with profound dementia and paralysis. (2) The contractures are of a flexor nature and occur in the lower extremities—in 50 per cent. of his cases both upper and lower extremities were involved. (3) Muscular atrophy and wasting accompany contractures. (4) All his cases were attended with rigidity of the spinal column.

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Journal de Psychologie Normale et Pathologique

(Vol. 3, No. 6, Nov.-Dec., 1906.)

1. Variations in the Structure of the Cerebrum. P. GIRARD.

2. Hysterical Laughter. J. INGEGNIEROS.

1. *Variations in the Structure of the Cerebrum.*—Anthropologists have long imagined that, as a result of some measurement, weight, or other mode of calculation, a mathematical index might be established to indicate the relative intellectual status of any one given individual. So far their hopes have not been realized. In the present essay Girard attacks the problem in a somewhat different way, a way which provoked much brilliant and heated discussion along about the middle of the last century. Granting that two factors, the one somatic, representing the organic mass, and the other intellectual or psychic, representing the coefficient of cephalization, determine the volume and weight of the encephalon, the problem is to solve the manner and extent to which one or the other of these factors influences the form and intimate structure of the encephalon, especially the cerebrum. After reviewing the history of the earlier attempts to answer this question and after detailing some of his own experimental work, the author presents certain general conclusions. He says that in chemical analysis, and not in mere morphological observation, must the proper answer to the question be sought. He compares the white matter with the gray, and in their relative and comparative chemical composition he discovers a more or less definite index of the individual's intellectual status. In its general features the problem is solved thus: Taking into account the superiority of the size of the animal, the superiority of the intelligence, using the word in its broadest and fullest physiological sense, implies a particular structure of the brain corresponding to a certain proportional development of the gray substance and of the white.

2. *Hysterical Laughter.*—There is very little literature upon the nervous and mental pathology and pathogenesis of laughter, though the studies are numerous that relate to its physiology and psychology. Ingegneros quotes some definitions from these studies and then takes up the pathology of laughter, particularly hysterical laughter, illustrating by case reports. He says that in ordinary laughter three factors are to be distinguished, namely, the pantomimic element, the emotional element, and the intellectual element. The phenomenon is thus a complex one and these various elements may associate and dissociate among themselves in numerous ways. There exists, therefore, a pathology of laughter that is purely pantomimic, one that is purely emotional, and one that is purely intellectual. These the author elaborates, differentiates and studies in great detail. The pathological pantomimic

laughter is seen in some of the spasmodic manifestations of hemiplegia, lateral sclerosis, bulbar lesions, etc.; in the exhibitions of imitative laughter occurring in idiots, demented, etc., and in the classical laughter in ore stultorum; in the tics with the manifestation of rictus; and in the convulsive movements of the muscular groups normally concerned in laughter, as for instance, in hysteria. In pathological emotional laughter, we meet with dissociation between the emotional state and its pantomimic expression. For example, the laughter accompanies a painful feeling. Sometimes there is a disproportion between the emotional state and its pantomimic manifestation. This is seen in the intense and irresistible laughter accompanying a really inadequate motive (fool laughter). It is also observed in the emotion of pleasure, with corresponding pantomimic manifestation, revealed by certain born criminals when relating the details of their crimes. Among the cases of pathological intellectual laughter are to be included those in which the laughter is provoked by a morbid process of reasoning (delirious laughter), by morbid perceptions (hallucinatory laughter), by obsessions, by false representative processes, etc. The erotomaniac, the victim of hallucinations, and the reasoning fool who find pleasure, for instance, in their illogical ideas, are all illustrations of this third form of morbid laughter. After discussing thus the general subject of the pathology of laughter, the author devotes the rest of his long article to hysterical laughter, taking up in detail its classification, its origin, its differential diagnosis, its paroxysmal manifestations, and its treatment by hypnotic suggestion. As these are all portrayed from long case reports rather than discussed in a set scholastic manner, the author's article is not one easily abstracted, though it is highly interesting and instructive.

(Vol. 4, No. 1, Jan.-Feb., 1907.)

1. Disorders of Emotional Pantomime among the Insane. DROMARD.
2. Contribution to the Physiology of the After-sensations of Taste. POLIMANTI.
3. The "Call of God." BENEZECH.

1. *Disorders of Emotional Pantomime among the Insane.*—In a preceding paper (JOURNAL OF NERVOUS AND MENTAL DISEASE, March, 1907, p. 207) Dromard discussed the disorders of voluntary pantomime observed among the feeble-minded. The present paper is the second of the series and is a study of the disorders of involuntary or passive pantomime among the insane. Of these involuntary, passive, emotional pantomimic disorders, some exhibit themselves as real disturbances of adaptation and seem to take their origin from a perturbation of the ideo-affective associations; while others appear to be mere disturbances of function resulting from an alteration in the apparatus which is specially set apart for the organization of the emotional manifestations, namely, the thalamus and its dependencies. In the disorders of adaptation there is detected an incongruity between the manifestations of the emotion and the emotional quality of the situation. In the disturbances of function, the performance of the pantomimic movements themselves is profoundly affected, whether that be by failure of inhibition or by defective dynamogeny. Each of these three forms of dis-

turbed emotional pantomimia the author discusses in detail and illustrates by case reports. (1) Of the first, paramimia, he concludes as follows: In certain patients there is a dissociation between the ideational activity and the affective activity. The emotion is not in consonance with the idea. It happens, therefore, that the pantomimic manifestations do not accord strictly with the accompanying speech. Indeed, paramimia is not so much an indication of a discrepancy between the pantomimic expression and the thymopsychic activity of which it is the portrayal, as it is an evidence of a discrepancy between this thymopsychic or affective activity and the noöpsychic or intellectual activity which ought to be normally fully commensurate with it. This is equivalent to saying that the phenomena now under consideration are not due to a break in the ideo-pantomimic connections, but to a break in the ideo-affective associations. And, if we admit that there is an insolubility between the emotional life and the pantomimic activity, we will recognize the fact that here the pantomimic manifestations preserve their normal attributes, qualities, or fundamental mental relationships. This psychological observation proves that paramimia, properly speaking, is not a psycho-pantomimic disorder. Many writers give a broader definition to the term paramimia and make it include a number of disorders which Dromard speaks of under the respective heads of spasmodic pantomimia and dissociated pantomimia. Dromard believes that it is of special practical value not to classify these disorders according to their mere external characteristics or objective traits when one is studying them from the standpoint of psychology. (2) The disorders of emotional pantomime from failure of inhibition have their origin in a disturbance of the ideo-affective associations resulting from the thalamus being directly excited by an irritative lesion or, better still, from the loss of its cortical connections through a destructive lesion of the corona radiata, the cerebrum being thus prevented from exercising its proper inhibitory control. The motor discharges are therefore somewhat automatic in character and assume the form of a spasmodic pantomimic manifestation, which is always involuntary if not always unconscious. This spasmodic pantomimia is observed in patients who possess old organic lesions (hemorrhage or softening). It is not rare where the lesion is diffuse or disseminated. It has been studied in cases of cerebral syphilis and general paralysis. It is frequent in senile dementia. In the psychoneuroses, notably hysteria and epilepsy, it occurs; sometimes as remarkable exhibitions of automatic laughing and weeping. It is not uncommon in the psychoses, as for instance, catatonia and dementia præcox. (3) In contradistinction to the preceding type of emotional pantomimia is that in which there is a defective dynamogeny by reason of the thalamus not exercising over the lower executive centers the coordinating authority that it should, and in this way throwing the neuro-muscular apparatus and all its dependencies into a condition of nullity and clumsiness. In general these disorders are revealed in a dissociation and discordance of the pantomimic movements. So important are these the author proposes to devote a separate paper to their discussion.

2. *Physiology of the After-Sensations of Taste.*—This is a physiological study wherein Polimanti criticizes some earlier theories concocted to explain the modifications in the taste of certain substances when other substances are applied to the tongue. He concludes that the after-sensations of taste thus engendered are due to a modification,

physico-chemical in nature, of the membrane which incloses the gustatory papillæ.

3. *The "Call of God."*—Benezech reports the case of a scientific investigator who had a distinct auditory hallucination in which he clearly heard the voice of God calling to him to go out and labor in the missionary field. He gave up his scientific work and obeyed the call. The case is reported as a sort of sequel to Binet-Sangle's study of the prophet Samuel, who was looked upon as a cerebral degenerate.

METTLER (Chicago).

Miscellany

CASES SIMULATING CEREBELLAR DISEASE. A. A. Eshner (Journal A. M. A., March 23, 1907).

The author reports two cases suggestive of cerebellar disease. In one there was a reeling gait, unilateral weakness, impaired hearing and tinnitus, but the lack of objective symptoms and the fact that the disorders followed rather closely a mental shock, suggested hysteria, and treatment directed on this theory effected a speedy cure. The other case commenced with headache, vomiting, vertigo and ataxia, followed later by left hemiparesis and increase of reflexes, drowsiness, etc. There were no mental symptoms or ophthalmic or other cranial nerve symptoms, and the course of the disorder was afebrile. There was no specific history, but the patient gradually improved under treatment with iodids and mercury. The drowsiness, which seemed hardly to be accounted for by the bromids given for the intense headache, suggested meningeal or arterial disease.

THE PHYSIOLOGIC CONCEPTION OF DISEASE IN NEUROLOGY. L. Harrison Mettler (Journal A. M. A., February 23, 1907).

The author considers that the anatomic or organic conception of disease, the accounting for disorders by the structural changes found, though still dominant in clinical medicine, is passing, and that the idea that disease is an abnormal physiologic process is coming more to the front. In practical scientific medicine it is the abnormal physiology, the disturbed functions, that is the desired goal of study. This is the physiologic conception of disease, and while not opposed to the anatomic, on which it in part rests, it is a higher and more accurate conception than the latter. It has, nevertheless, been slow in acceptance, and while recognized by the most advanced leaders of medical thought, it is still inadequately presented in the teaching of the day. It is in neurology, he thinks, that the physiologic principle is the interpretation of disease, and its symptomatology is more conspicuous than in any other department of medicine. The neurone theory, which Mettler considers as essentially valid in spite of the modifications necessitated by recent discoveries, has given us one unit and that a physiologic one. In the nervous system it has given us a physiologic conception of its diseases, which renders the usual anatomic classifications of the textbooks confusing to the average student and practitioner. He gives a summarized explanation of his own tentative physiologic classification of nervous diseases, into those of the neuron or functionating tissues and those of the supporting or nutritional ones, the former being characterized by degenerative, the latter by inflammatory processes,